

REMARKS

The Office Action mailed September 17, 2007, has been received and reviewed.

Claims 1 through 20 are currently pending in the application. Claims 1 through 3, and 12 through 20 stand rejected. Claims 4 through 11 are withdrawn. Applicant has amended claims 1 and 15, and respectfully requests reconsideration of the application in view of the amendments and the remarks set forth below.

35 U.S.C. § 112 Claim Rejections

Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 1 through 3, and 12 through 20 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicant respectfully traverses this rejection, as hereinafter set forth.

The Examiner has asserted at Page 2 of the outstanding Office Action that “[t]he disclosure, as originally filed, failed to provide support for removing dielectric material *and then* sizing, configuring and positioning step,” and that “[i]t would appear that the sizing and configuring step be performed *before* the removing step.” (Emphasis added). The Examiner has also asserted at Page 2 of the outstanding Office Action that “the disclosure filed [sic] to provide support for performing the sizing, configuring and positioning step at the same time.”

It is improper to “read a specific order of steps into method claims where, as a matter of logic or grammar, the language of the method claims [does] not impose a specific order on the performance of the method steps, and the specification [does] not directly or implicitly require a particular order.” Altriris Inc. v. Symantec Corp., 318 F.3d 1363, 1371, 65 USPQ2d 1865, 1869-70 (Fed. Cir. 2003); MPEP § 2111.01(II).

The language of claims 1 and 12 does not require that the sizing and configuring actions be performed before the removing action, either as a matter of logic or grammar. The sizing, configuring, positioning, and removing actions may be performed in any order, and some or all of the actions may be performed concurrently.

The Examiner appears to be asserting that the method claims must be limited in scope to one or more particular orders of actions described in the as-filed application. In other words, the Examiner appears to assert that the broader method claims, not limited to any particular order of action, should be amended in such a manner as to be limited to narrower orders described in the as-filed application. Applicant admits that “[u]nder certain circumstances, omission of a limitation [such as a particular order of actions recited in a method claim] can raise an issue regarding whether the inventor had possession of a broader, more generic invention [such as a method claim not requiring any particular order of actions recited in a method claim].” M.P.E.P. § 2163(I)(B), Page 2100-175 (8th Ed., Rev. 6, 2007) (citing PIN/NIP, Inc. v. Platte Chem. Co., 304 F.3d 1235, 1248 (Fed. Cir. 2002); Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473 (Fed. Cir. 1998); Johnson Worldwide Associates v. Zebeo Corp., 175 F.3d 985, 993 (Fed. Cir. 1999); Tronzo v. Biomet, 156 F.3d at 1158-59 (Fed. Cir. 1998)). Such circumstances, however, clearly are not present in this case, and the facts of this case are clearly distinguishable from those in the previous cases in which the Federal Circuit held that the applicant was not entitled to a claim omitting a particular limitation described in the specification. The present application does not state that any particular order of actions is “the only possible” order of actions, or that other orders of actions are “outside the stated purpose of the invention,” as was stated in the application in Gentry Gallery. Gentry Gallery, 134 F.3d at 1479. Furthermore, the present application does not “make crystal clear that a particular (i.e., narrow) understanding” of a claim (i.e., a particular order of actions recited in the method) “is an ‘essential element of [the inventor’s invention].’” Johnson Worldwide Associates, 175 F.3d at 993 (citing Gentry Gallery). Therefore, the Applicant is entitled to the broader, more generic method claim that is not limited to any particular order of actions.

“An applicant shows possession of the claimed invention by *describing the claimed invention with all of its limitations* using such descriptive means as words, structures, figures, diagram, and formulas that fully set forth the claimed invention.” MPEP §2163.02 (emphasis added) (citing Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997)). In the present case, each of the limitations of the claims is described in the as-filed application.

The “removing at least a portion of the dielectric material” limitations of claims 1 and 15 are supported by the as-filed specification at least at paragraphs [0032]-[0033] with reference to FIGS. 4 and 9A in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

The “sizing, configuring, and positioning” limitations of claims 1 and 15 are supported by the as-filed specification at least at paragraphs [0033] and [0039] with reference to FIGS. 4 and 9A in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

As mentioned above, the Examiner has asserted at Page 2 of the outstanding Office Action that “the disclosure filed [sic] to provide support for performing the sizing, configuring and positioning step at the same time.” Although claims 1 and 15 encompass methods in which the sizing, configuring and positioning actions are performed at the same time or substantially the same time, Applicant respectfully asserts that the claims are not limited to “performing the sizing, configuring and positioning step at the same time,” and that the claims encompass methods in which the sizing, configuring and positioning actions are not performed simultaneously.

Nonetheless, Applicant asserts that the as-filed specification does provide support for methods in which the sizing, configuring and positioning actions are performed at the same time or substantially the same time. For example, paragraph [0033] of the as-filed specification states that “[a] crosspiece or bridge 70 comprises a filleted portion of the interposer substrate 20 which is *left uncut* during manufacture, i.e., two longitudinally adjacent interconnect slots or slot segments 40A, 40B are formed in interposer substrate 20 instead of a single interconnect slot, leaving crosspiece or bridge 70 in place.” (Emphasis added). Applicant respectfully asserts that at least cutting (e.g., milling) the interposer substrate 20 in such a manner as to form the two longitudinally adjacent interconnect slots or slot segments 40A, 40B shown in Figure 4, as described in paragraph [0033], would include at least substantially concurrently “sizing, configuring and positioning the first segment of the elongated multisegmented interconnect slot and the at least a second segment of the elongated multisegmented interconnect slot for

respective alignment with a first plurality of bond pads and at least a second plurality of bond pads on a single semiconductor die,” as recited in claim 1.

Finally, The Examiner has asserted at Page 2 of the outstanding Office Action that “the configuring and positioning step imply removing the dielectric material to form the first and second segments,” and that “[t]he disclosure failed to provide support for performing the removing step twice.”

Applicant asserts that the Examiner is reading limitations into the claims that are not recited therein. The language of the claims does not require “performing a removing step twice.” Claim 1 merely requires “removing at least a portion of the dielectric material...and positioning at least one crosspiece...to form a first segment...and at least a second segment...,” while claim 15 merely requires “removing at least a portion of the dielectric material...and positioning [a] plurality of crosspieces...to form a plurality of segments....” Neither claim 1 nor claim 15 requires “performing a removing step twice.”

Nonetheless, the as-filed specification states that the first and second segments may be formed by removing the dielectric material, and such methods could in some instances involve “performing a removing step twice.” For example, as previously mentioned, paragraph [0033] of the as-filed specification states that “[a] crosspiece or bridge 70 comprises a filleted portion of the interposer substrate 20 which is left uncut during manufacture, i.e., two longitudinally adjacent interconnect slots or slot segments 40A, 40B are formed in interposer substrate 20 instead of a single interconnect slot, leaving crosspiece or bridge 70 in place.” Those of ordinary skill in the art would recognize that the two longitudinally adjacent interconnect slots could be “cut” sequentially using a single milling tool in such a manner as to perform a removing step twice (although, again, such limitations are not recited in the claims and the claims are not limited to such processes).

For the reasons set forth above, Applicant respectfully asserts that the subject matter of the claims was described in the as-filed specification in such a way as to reasonably convey to one skilled in the art that the inventor had possession of the claimed invention at the time the application was filed. Applicant therefore requests that the Examiner withdraw the rejection of claims 1 through 3, and 12 through 20 under 35 U.S.C. § 112, first paragraph.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 1 through 3, and 12 through 20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully traverses this rejection, as hereinafter set forth.

The Examiner has stated at Page 3 of the outstanding Office Action that:

Evidence that claims 1-3 and 12-20 fail to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 1/12/04. In that paper, applicant has stated in the claim 1 as follows: providing a substantially planar substrate *and then* forming an elongated interconnect slot, and this statement indicates that the invention is different from what is defined in the claim(s) because the claims require removing a dielectric material that is not the same as dielectric material from providing step in line 2 and performing sizing, configuring and positioning step imply removing the dielectric material to form the first and second segments. Outstanding Office Action, Page 3 (emphasis added).

As an initial matter, Applicant respectfully notes that the Examiner has misquoted the language of claim 1 as set forth in the Preliminary Amendment filed January 12, 2004. Claim 1, as presented in the Preliminary Amendment filed January 12, 2004, recited “[a] method for forming an interposer substrate, comprising: providing a substantially planar *substrate; forming* an elongated interconnect slot comprising a plurality of longitudinally adjacent segments separated by at least one transversely extending crosspiece.” (Emphasis added). There was no recitation of “and then” between the action of providing the substantially planar substrate and the action of forming an elongated interconnect slot. Furthermore, as previously mentioned, it is improper to “read a specific order of steps into method claims where, as a matter of logic or grammar, the language of the method claims [does] not impose a specific order on the performance of the method steps, and the specification [does] not directly or implicitly require a particular order.” Altriris Inc. v. Symantec Corp., 318 F.3d 1363, 1371, 65 USPQ2d 1865, 1869-70 (Fed. Cir. 2003); MPEP § 2111.01(II).

Regarding the Examiner's assertion that "the claims require removing a dielectric material that is not the same as dielectric material from providing step in line 2 and performing sizing, configuring and positioning step imply removing the dielectric material to form the first and second segments," Applicant has amended each of claims 1 and 15 to recite "*removing at least a portion of the* dielectric material from the substrate" to clarify that the dielectric material removed is the dielectric material of the substrate and that the claims do not require removing a dielectric material that is not the same as dielectric material recited in the "providing" action of claims 1 and 15.

The Examiner has further asserted at Page 3 of the outstanding Office Action that "it is unclear [in Claim 1, lines 4-6] where the forming step is performed." Applicant has amended claim 1 to recite "forming an elongated multisegmented interconnect slot in the substantially planar substrate," and has amended claim 15 to recite "forming an elongated multisegmented interconnect slot in the substantially planar substrate." Applicant asserts that it is clear in amended claims 1 and 15 that the elongated multisegmented interconnect slot is formed in the substrate.

The Examiner has also asked at Page 3 of the outstanding Office Action if the "dielectric material" recited in line 8 of claim 1 is the dielectric material recited in line 2 of claim 1 or some other dielectric material. Application has amended each of claims 1 and 15 to recite "*removing at least a portion of the* dielectric material from the substrate" to make it clear that the dielectric material recited in the "removing" limitations is the previously recited dielectric material of the substrate.

In view of the amendments to the claims, and for the reasons set forth above, Applicant respectfully asserts that claims 1-3 and 12-20 are clear and are not indefinite for failing to particularly point out and distinctively claim the subject matter which applicant regards as the invention. Therefore, Applicant requests that the Examiner withdraw the rejection of claims 1 through 3, and 12 through 20 under 35 U.S.C. § 112, second paragraph.

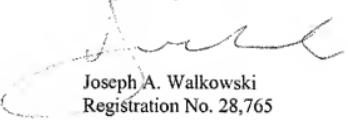
ENTRY OF AMENDMENTS

The amendments to claims 1 and 15 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

CONCLUSION

Claims 1 through 20 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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